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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,425	03/09/2006	Bo Lofquist	05822.0325USWO	6244

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EXAMINER

RODRIGUEZ, JOSEPH C

ART UNIT	PAPER NUMBER
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3653

MAIL DATE	DELIVERY MODE
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09/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/541,425</p>	<p>Applicant(s)</p> <p align="center">LOFQUIST ET AL.</p>	
	<p>Examiner</p> <p align="center">Joseph C. Rodriguez</p>	<p>Art Unit</p> <p align="center">3653</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/5/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

Here, Examiner acknowledges receipt of the International Search Report and the references cited therein.

The references cited in the Search Report have been considered and will be listed on any patent resulting from this application to the extent the references have been provided to the Office and are listed on the accompanying PTO-1449 form. See 37 CFR 1.98(a)(1); MPEP 1893.03(g).

Specification

The abstract of the disclosure is objected to for improper language. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. *It should avoid using phrases which can be implied*, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

The claims are objected to as the form of claims 1-12 is improper. Where a claim sets forth a plurality of elements or steps, as in the instant claims, each element or step should be separated by a line indentation. See MPEP 608.01(m) and 37 CFR 1.75(i).

Claim 12 should read "A method".

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding these claims, the phrases "or the like" and "granules, etc." render the claims indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like" or "etc."), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Further, Applicant's frequent use of "and/or" language throughout the claims could lead to confusion during claim interpretation, especially when multiple uses of this language is involved. Examiner recommends more distinctly claiming the invention to avoid any confusion as to what elements are required to anticipate the claimed invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, 8, 11 rejected under 35 U.S.C. 102(b) as being anticipated by Stone et al. ("Stone")(US 6,096,991).

Stone (Fig. 1-3) teaches a method and sorting device for sorting granules comprising

positioning means (inner drum 12; col. 3, ln. 43 et seq. teaching multiple apertures or perforations, i.e., pockets, wherein it is implicit that openings are in rows based on ejector arrays) giving a well-separated position for each granule;

detecting means (array 34, 40);

at least one source of electromagnetic radiation or sonic waves (32, 38; col. 1, ln. 63-col. 2, ln. 10);

ejecting means (array 36, 42) and receiving means (24, 26, 28). Further, Applicant is respectfully reminded that claim language consisting of functional language and/or intended use phrasing is given little, if any, patentable weight as the apparatus must merely be capable of functioning, or being used, as claimed. See MPEP 2112.02, 2114. Here, the device cited above is certainly capable of being rotated with such a high speed that the granules are positioned and held in the pockets for a time sufficient for detection and ejection or positioned and held in the pockets by means of centrifugal

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force at the top of the turn of the cylinder. Applicant is also respectfully reminded that the material or article worked upon ("granule or the like") by the apparatus does not limit apparatus claims. See MPEP 2115. The method claims are regarded as anticipated in the normal operation of the device cited above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone in view of Welch et al. ("Welch") (US 4,720,473) and Doak et al. ("Doak")(US 6,497,324).

Stone as set forth above teaches all that is claimed except for expressly teaching the source of electromagnetic radiation comprises a at least one light emitting diode and wherein the detecting means is arranged for co-operation with several rows of pockets by means of fiber optic cables, filters and/or that a lens is placed at the end of each fiber optic cable and that a source of compressed air is connected to at least one ejector by means of one or more single way valves or multi way valves; that the ejecting means has the form of flaps opening to the outside of a cylinder comprising includes a timer, used to control the position of each pocket. Further, under an alternative interpretation,

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Stone may not be regarded as teaching pockets placed in rows adapted to capture and hold the objects, wherein the object is positioned to fully cover the opening. Stone, however, already teaches that apertures may be formed in any suitable way. Welch further teaches that it is known in the sorting arts to shape pockets based on the materials to be separated (Fig. 2, 5, 6; col. 5, ln. 60 et seq.). Thus, it logically follows that one with skill in the art would know to design pockets as claimed. With regards to the other device features, these features are all well-known functional equivalents in the sorting arts and Examiner takes Official Notice of such (see e.g., Doak, col. 1, ln. 18-65; Fig. 1-3, 9, 10; col. 5, ln. 28 et seq. teaching LED source and optical fibers connected by microprocessor 54 to air ejector arrays to sort objects). Further, it would be obvious to one with ordinary skill in the art to modify Stone with these prior art teachings to arrive at the claimed invention. The rationale for this obviousness determination can be found from an analysis of the prior art teachings as the modification to arrive at the claimed invention would merely involve the substitution/addition of well-known elements with no change in their respective functions. Moreover, the use of prior art elements according to their functions is a predictable variation that would yield predictable results, and thus cannot be regarded as a non-obvious modification when the modification is already commonly implemented in the prior art. Further, the prior art discussed and cited demonstrates the level of sophistication of one with ordinary skill in the art and that these modifications would be within this skill level. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Stone for the reasons set forth above.

Conclusion

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Joseph C Rodriguez** whose telephone number is **571-272-6942** (M-F, 9 am – 6 pm, EST). The Supervisory Examiner is Patrick Mackey, **571-272-6916**. The **Official** fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

The examiner's **UNOFFICIAL Personal fax number** is **571-273-6942**.

Further, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

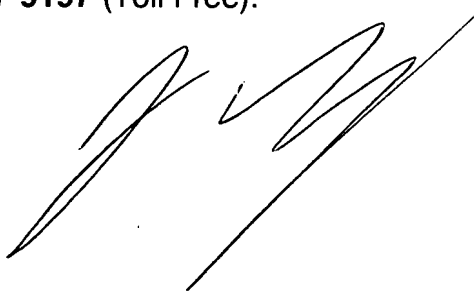
Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>

Should you have questions on access to the Private PMR system, contact the Electronic Business Center (EBC) at **866-217-9197** (Toll Free).

Signed by Examiner /Joseph Rodriguez/

Jcr

September 24, 2007

A handwritten signature in black ink, appearing to be 'JCR' or similar, written in a stylized, cursive-like font.